

**AMENDMENTS TO THE CLAIMS**

Please amend the claims as follows.

1. (Currently Amended) A method for managing resources of a computer system, comprising:  
creating a first resource pool and a second resource pool within the computer system,  
wherein the computer system comprises a first resource and a second resource;  
allocating a first portion of the first resource to the first resource pool;  
allocating a second portion of the first resource to the second resource pool;  
allocating a first portion of the second resource to the first resource pool;  
allocating a second portion of the second resource to the second resource pool;  
creating a first container and a second container within the first resource pool; wherein  
creating the container comprises allocating a first portion of a first resource of the  
computer system to the container, wherein the computer system comprises a plurality  
of sets of processors and a plurality of resource pools;  
associating the container with a resource pool of the plurality of resource pools, wherein the  
resource pool is associated with one of the plurality of sets of processors and is  
allocated a portion of the first resource, wherein the associated container resides in  
the resource pool along with a different container, wherein the different container is  
allocated a second portion of the first resource;  
specifying resource requirements for the first container; wherein the resource requirements  
for the first container specify a first requirement for the first resource and a first  
requirement for the second resource;  
determining whether the resource requirements for the first container are first portion of the  
first resource allocated to the container is valid, wherein the resource requirements  
for the first container are first portion of the first resource allocated to the container is  
valid when the first requirement for the first resource first portion of the first  
resource allocated to the container does not exceed the first portion of the first  
resource and the first requirement for the second resource does not exceed the first  
portion of the second resource allocated to the resource pool; and

activating the first container only if the resource requirements for the first container are first portion of the first resource is valid, wherein activating the first container enables at least one system user to use the first container.

2. (Currently Amended) The method of claim 1, further comprising:  
executing a project within the first container once the first container is active.
3. (Currently Amended) The method of claim 2, further comprising:  
collecting statistics corresponding to the executing of the project in the first container.
4. (Currently Amended) The method of claim 2, further comprising:  
triggering an alert if the project executing within the first container attempts to use more than the first portion of the first resource.
5. (Currently Amended) The method of claim 2, wherein the project does not use more than the first portion of the first resource while executing in the first container.
6. (Currently Amended) The method of claim 2, wherein the project is placed in the first container by a user listed on an access control list associated with the first container.
7. (Currently Amended) The method of claim 1, further comprising:  
specifying resource requirements for the second container; wherein the resource requirements for the second container specify a second requirement for the first resource and a second requirement for the second resource.  
~~allocating a third portion of the first resource to the container, if the first portion of the first resource allocated to the container is not valid;~~  
~~determining that the third portion of the first resource allocated to the container is valid when the third portion of the first resource allocated to the container does not exceed the portion of the first resource allocated to the resource pool; and~~  
~~based on determining that the third portion of the first resource allocated to the container is valid, activating the container.~~

8. (Currently Amended) The method of claim 1, further comprising:  
~~allocating a first portion of a second resource of the computer system to the container;~~  
determining whether the resource requirements for the second container are first portion of the second resource allocated to the container is valid, wherein the resource requirements for the second container are valid when the second requirement for the first resource does not exceed the first portion of the first resource and the second requirement for the second resource does not exceed the first portion of the second resource; and  
activating the second container only if the resource requirements for the second container are valid, wherein activating the second container enables the at least one system user to use the second container.
9. (Currently Amended) The method of claim 1, further comprising:  
upon receiving an indication of a requirement to deactivate ~~deactivating~~ the first container, ~~wherein deactivating the first container comprises by releasing the first portion of the first resource and the first portion of the second resource from the first container.~~
10. (Currently Amended) The method of claim 9, further comprising:  
transferring ~~[[the]]~~ a project executing in the first container to a default container ~~[[if]]~~  
before the first container is deactivated; and  
executing the project in the default container.
11. (Currently Amended) The method of claim 1, further comprising:  
modifying the first portion of the first resource after the first container is activated.
12. (Currently Amended) The method of claim 11, wherein modifying the first portion of the first resource comprises modifying a container definition of the first container.

13. (Currently Amended) The method of claim 1, wherein creating the first container comprises:
- defining a container name;
  - specifying a minimum CPU requirement for the container;
  - specifying a maximum physical memory limit; and
  - specifying a maximum outgoing network bandwidth.
14. (Currently Amended) The method of claim ~~[[12]]~~13, wherein creating the first container further comprises:
- specifying a project associated with the first container, wherein the project ~~corresponds to~~ is one of a plurality of processes.
15. (Currently Amended) The method of claim 14, wherein each of the plurality of processes is identified by ~~the same~~ a common identifier.
16. (Currently Amended) The method of claim 1, wherein the first resource is at least one selected from a group consisting of a plurality of processors, physical memory and bandwidth.

17. (Currently Amended) A computer system, comprising:

~~a plurality of sets of processors;~~

a first resource and a second resource;

a plurality of resource pools, wherein a first resource pool of the plurality of resource pools is allocated a first portion of the first resource and a first portion of the second resource, and wherein ~~a second resource pool of the plurality of resource pools is allocated a second portion of the first resource and a second portion of the second resource—the resource pool is associated with one of the plurality of sets of processors;~~

a plurality of containers residing in the first resource pool, wherein a first container of the plurality of containers comprises a requirements specification for the first resource for the first container and a requirements specification for the second resource for the first container; and

a management interface configured to:

validate that the requirements specification for the first resource does not exceed the ~~allocated~~ first portion of the first resource, and

validate that the requirements specification for the second resource does not exceed the ~~allocated~~ first portion of the second resource.

18. (Currently Amended) The system of claim 17, further comprising:

a database configured to track:

~~allocation~~ the first portion of the first resource;

~~allocation~~ the first portion of the second resource;

the requirements specification of the first resource for the first container; and

the requirements specification of the second resource for the first container.

19. (Previously Presented) The system of claim 17, further comprising;  
a second container of the plurality of containers, wherein the second container comprises a requirements specification the first resource for the second container and a requirements specification for the second resource for the second container;
20. (Original) The system of claim 19, wherein the usage of the first resource and the second resource by the first container and the second container is determined using fair share scheduling.
21. (Original) The system of claim 17, wherein the management interface is configured to modify the requirements specification for the first resource for the first container.
22. (Previously Presented) The system of claim 17, wherein the requirements specification for the first resource for the first container and the requirements specification of the second resource for the first container are included in a container definition of the first container.
23. (Original) The system claim 17, further comprising:  
a project configured to execute in the first container, wherein the project corresponds to a network-wide administrative identifier used to identify related processes.
24. (Currently Amended) The system of claim 23, wherein the amount of the first resource used to execute the project in the first container does not exceed the first portion of the first resource allocated to the first container.
25. (Original) The system of claim 23, wherein the amount of the first resource used to execute the project in the first container does not exceed the requirements specification of the first resource for the first container.
26. (Original) The system of claim 23, wherein the management interface is configured to track usage of the first resource and the second resource by the project.

27. (Original) The system of claim 23, wherein the project is placed in the first container by a user listed on an access control list associated with the first container.
28. (Original) The system of claim 17, further comprising:
- a first management utility configured to manage the first resource; and
  - a second management utility configured to manage the second resource,
- wherein the management interface is further configured to interface with the first management utility and the second management utility to manage the portion of the first resource and the portion of the second resource allocated to the resource pool.
29. (Original) The system of claim 17, wherein the management interface is further configured to discover the first resource and the second resource.
30. (Original) The system of claim 17, wherein the first container comprises:
- a container name;
  - a minimum CPU requirement for the container;
  - a maximum physical memory limit;
  - specifying a maximum outgoing network bandwidth.
31. (Currently Amended) The system of claim 17, wherein the first resource is at least one selected from a group consisting of a plurality of processors, physical memory and bandwidth.

32. (Currently Amended) A network system having a plurality of nodes, comprising:

~~a plurality of sets of processors;~~

a first resource and a second resource;

a plurality of resource pools, wherein a first resource pool of the plurality of resource pools is allocated a first portion of the first resource and a first portion of the second resource, and wherein a second resource pool of the plurality of resource pools is allocated a second portion of the first resource and a second portion of the second resource—~~the resource pool is associated with one of the plurality of sets of processors;~~

a plurality of containers residing in the resource pool, wherein a first container of the plurality of containers comprises a requirements specification for the first resource for the container and a requirements specification for the second resource for the container; and

a management interface configured to:

validate that the requirements specification for the first resource does not exceed the ~~allocated~~ first portion of the first resource, and

validate that the requirements specification for the second resource does not exceed the ~~allocated~~ first portion of the second resource,

wherein the first resource is located on any one of the plurality of nodes,

wherein the second resource is located on any one of the plurality of nodes,

wherein the first resource pool is located on any one of the plurality of nodes,

wherein the first container is located on any one of the plurality of nodes,

wherein the management interface executes on any one of the plurality of nodes.